

10/577071

APR 20 2006

Abstract:

An automotive fuel injector leakage tester

An automotive fuel injector leakage tester (10) comprising a mount (22) for such an injector (32) and a flowmeter (66) of sufficient sensitivity arranged to measure leaked fuel flow rates through the nozzle (34) of such an injector (32). The tester (10) is further provided with an interface passageway (58) which enables fluid communication between the injector nozzle (34) and the flowmeter (66) when the tester (10) is in use. An injector (32) contains a first liquid when under test to supply such liquid to the injector nozzle (34) so that such liquid can leak therethrough into the interface passageway (58). The interface passageway (58) contains a second liquid which is immiscible with the first liquid, the tester (10) being so constructed that the interface between the first and second liquids remains within the interface passageway (58) whilst the flowmeter (66) provides a measure of the leakage of the first liquid through the nozzle (34) of such an injector (32).

The invention extends to a method of testing an automotive fuel injector for leakage, a tester with a heat transfer detection flowmeter (in which the same liquid can flow through the injector as flows through the flowmeter), apparatus and a method of bringing two

components together along a slanting imaginary line in a bath of liquid, and a master leak for calibrating an automotive fuel injector tester.